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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,848	06/24/2003	Yoshinori Tanaka	1324.68109	9315

7590 09/29/2004
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EXAMINER

PARKER, KENNETH

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 09/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/602,848	Applicant(s) TANAKA ET AL.	
	Examiner Kenneth A Parker	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 13-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/607,104
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/21/2002</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 13-14 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Satou 5930607.

Satou shows regarding claim 13 an active matrix type liquid crystal display comprising (figures 9, 10 and cover):

a switching element formed for each of a plurality of pixels decided by a plurality of bus lines (shown in figure 9 in the sections labeled "R");

a short ring 180 connected to the plurality of bus lines 52,54;

and an electrostatic protection element portion 140a,140b formed between each of the plurality of bus lines and the short ring;

wherein the electrostatic protection element portion comprises a plurality of metal layers 900, 930 (as viewed from cover figure),

an insulating layer 940b formed on the plurality of metal layers with a contact hole formed by opening the insulating layer on the plurality of metal layers,

and a connecting layer 952 electrically connecting between the metal layers via the contact hole.

Satou shows regarding claim 14 an active matrix type liquid crystal display comprising:

a switching element formed for each of a plurality of pixels decided by a plurality of bus lines (shown in figure 9 in the sections labeled "R");

a short ring 180 connected to the plurality of bus lines 52,54;

and an electrostatic protection element portion 140a,140b formed between the adjacent bus lines (they are shown as located physically between the bus lines);

wherein the electrostatic protection element portion comprises a plurality of metal layers 900, 930 (as viewed from cover figure),

an insulating layer 940b formed on the plurality of metal layers with a contact hole formed by opening the insulating layer on the plurality of metal layers,

and a connecting layer 952 electrically connecting between the metal layers via the contact hole.

Claim 15 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Holmberg 5668032.

Holmberg shows on the cover regarding claim 15 an active matrix type liquid crystal display comprising:

a switching element formed for each of a plurality of pixels decided by a plurality of data bus lines and gate bus lines;

a first common wiring connected to the data bus lines (28);
a second common wiring connected to the gate bus lines (22);
and an electrostatic protection element portion formed between the first common wiring and the second common wiring (resistor 110).

Claim 15 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kawai et al 6411348.

Kawai et al shows on the cover regarding claim 15 an active matrix type liquid crystal display comprising:

a switching element formed for each of a plurality of pixels decided by a plurality of data bus lines and gate bus lines;
a first common wiring connected to the data bus lines (28);
a second common wiring connected to the gate bus lines (22);
and an electrostatic protection element portion formed between the first common wiring and the second common wiring (resistor 110).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Satou 5930607 as applied to claims above and further in view of Shiraki 5926234.

As explained above, Satou shows all of the claimed elements of claim 13, but lacks the element between the data and gate bus lines. Shiraki discloses a modification of the type device of Satou (Shiraki figure 9), by adding elements between the bus lines individually and as a group (figure 10, described in column 14, lines 10-28, indicating that the embodiment with the extra protective devices has the transistors "more surely protected". Therefore it would have been obvious, in the device of Satou, to employ the protective elements also between each bus and each set of busses so the transistors will be more surely protected. As the elements of Satou have the structure where there is a conductor connecting two layers below it through a contact hole in an insulator, the limitations of the dependent claim are then met by the combination.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6734925, elements connected as claimed (see cover figure)

6683662, elements connected as claimed (see cover figure)

6710824 elements 85 and 82 connected between shorting bars(see cover figure)

6104449 figure 7 element 22

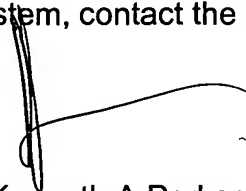
6043971 figure 5 element 13

5973658 figure 5 r2

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth A Parker whose telephone number is 571-272-2298. The examiner can normally be reached on M-F 10:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kenneth A Parker
Primary Examiner
Art Unit 2871